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ABSTRACT

A comparison is made between two broad strategies for instituting reform in secondary schools: the bottom-up, process-oriented approach typified by the California School Improvement Program and the top-down content-oriented approach typified by the more recent reform effort in California, the School Reform approach. The comparison was made in terms of the types of innovation undertaken, the local implementation process used, and the impact of the reform on school climate, teachers, students, and ongoing capacity for change at the local level. Specifically, the comparison of the two strategies focused on: (1) what content areas were addressed, what type of students were targeted, and what methods of instruction were pursued; (2) in what ways the people at the school conceived of, and implemented, the process of change; and (3) how did the innovations affect student outcomes, staff morale, or the capacity of the organization to make ongoing changes. Findings indicated that: (1) top-down strategies are effective for implementing comprehensive reforms; (2) the bottom-up process is most effective for unique programs targeted to specific student needs; (3) bottom-up changes are difficult to institutionalize within the regular program; and (4) top-down strategies must include bottom-up participation. (JD)

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# STATE-INITIATED TOP-DOWN VERSUS BOTTOM-UP REFORM IN SECONDARY SCHOOLS

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March, 1988

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Research on policy implementation, dissemination, the local change process and curriculum development has drawn extensively on the distinction between top-down and bottom-up change. For studies of policy implementation, "top" has referred to state or federal agencies while "down" has referred to district, schools and teachers in educational settings. McLaughlin (1987) describes three historical stages in policy implementation research; each with a distinct set of concerns about the relationship of "top" and "down." Related policy implementation research has been concerned with factors that enhance or block implementation at the "bottom" (McLaughlin, 1987), policy levers at the "top" that influence policy implementation at the "bottom" (McDonnell and Elmore, 1987), differential relationships between "top" and "bottom" for developmental versus redistributive policies (Peterson, Rabe & Wong, 1986) and related issues.

In dissemination research, Marsh and Huberman (1984) report, "we have protagonists of top-down, 'power-coercive' approaches pitted against protagonists of collaborative, bottom-up approaches" (p. 53). The authors describe the historical pattern where one and then the other of these broad approaches comes into favor and then is rejected. An important distinction between these approaches is "the degree of control exercised by senior administrators over the way curriculum is revised. In high-control condition, ...administrators rely on their formal authority to try to get things done the way they want them to be done...(while) in a low-control situation, power is 'equalized',

i.e., distributed among the involved parties so as to reduce the asymmetry of one group's influence over another" (Marsh & Huberman, 1984, p. 54). Havelock's (1973) problem-solving model illustrates another quality of bottom-up models: the emphasis on a set of process steps including needs assessment, the search for a solution, the retrieval of the solution and the application/ implementation of the solution.

Marsh and Huberman (1984) selected the authority-innovation-decision-making system by Rogers and Shoemaker (1971) from similar dissemination models by Chin and Benne (1969), Leithwood (1981), Havelock (1971), and Schon (1973), and adapted it to portray a state education system that included superordinate groups such as state department leaders, textbook publishers, and tertiary institutions as well as subordinate groups such as classroom teachers and principals. One important conclusion from the Marsh and Huberman (1984) research was that "the concept of top-down versus bottom-up dissemination needs refinement. From the national or regional 'top-down' standpoint, IV-C projects are local, home-grown, bottom-up endeavors. But from the standpoint of people inside the local district, the IV-C projects are top-down disseminations from the central administrative office to the schools" (p.63).

Research on local implementation has also been concerned with top-down versus bottom-up change (McLaughlin and Marsh, 1978; Fullan, 1982; Huberman and Miles, 1984; Crandall, Eiseman & Louis, 1986). In this research, "top" has typically meant

district and school leaders while "bottom" has meant classroom teachers. This research has focused on factors, especially factors which can be influenced by those at the "top", that enhance implementation at the "bottom", when fidelity or mutual-adaptation is the most viable means of transmitting innovations from the "top" to the "bottom", and how the extent of implementation at the "bottom" can be conceptualized and measured (see Hall & Hord, 1987).

Finally, research on curriculum development has been concerned with top-down and bottom-up curriculum development. Klein, Tye and Wright (1979) provide a conceptual framework which distinguishes formal/institutional levels of curriculum (the "top") from teacher level curriculum such as what an individual teacher intends to teach or actually uses in the classroom (the "bottom"). Glatthorn (1987) summarizes a set of labels from curriculum theory, such as the tested curriculum or the hidden curriculum, which allow researchers to describe what is lost or gained as curriculum is designed at the "top" or the "bottom." Short (1983) has proposed alternative curriculum development strategies that link "top" and "bottom" and proposes 10 criteria for evaluating these strategies. Concerns about the prospects of a centralized (top-down) curriculum have also been extensively explored (see Goodlad, 1984; Klein, 1986; Kirst, 1987b; Klein, 1987; Frymier, 1987; Goodlad, 1987).

Top-down versus bottom-up change in the context of state-initiated school reform

Recently, many states have undertaken policies designed to influence the content and process of reform in secondary schools. In some instances, the state effort has been a top-down, content-oriented strategy which has mandated the content of the reform and has pushed and/or enticed districts or schools to implement this design. In other instances, the state effort has been a bottom-up, process-oriented strategy which has initiated a planning process at the district or, more typically, at the school level.

Following the policy implementation and the national/regional perspective on top-down versus bottom-up change offered by Marsh and Huberman (1984), "top" in the context of state-initiated reform refers primarily to state educational and political leaders and "top-down" suggests the progression of impact of the policy as it is carried through district and school leaders before reaching the classroom teacher. The top-down strategy includes ideas of high-control and coerciveness portrayed in the dissemination and curriculum development literature. Content in the context of school reform has a broad interpretation to include changes in curriculum content, instructional strategies and/or school climate (Odden & Marsh, 1987; Anderson et al, 1987).

Bottom-up in the state-initiated reform context focuses primarily on schools and teachers as the "bottom." The "bottom-

up" strategy in state-initiated reform includes important dimensions of the bottom-up strategy found in the dissemination literature: power-equalization among decision-makers at the "bottom" and an emphasis on a set of process steps featuring needs assessment, setting of site-relevant objectives, searching for solutions, and implementing those solutions. The role of the state is primarily one of funding and defining the parameters of the local problem-solving process effort.

Two recent studies provide cross-sectional comparisons of state-initiated reform efforts across states. Anderson, et al, (1987) examined 10 states where school reform focused primarily on schoolwide improvement (the bottom-up, process-oriented strategy) or primarily on instructional improvement (the top-down, content-oriented strategy). The study identified state or local program and environmental factors related to successful state school improvement strategies, but was not able to examine the content of the reform in great depth or examine "comprehensive" reform that went beyond a specific initiative. In the second research effort, the Center for Policy Research in Education (1987) currently is conducting a series of comparative studies of state reform efforts focusing on curriculum and student standards, teacher policies, indicators of monitoring and new roles and responsibilities.

To date, however, little is known about the content of state-initiated top-down or bottom-up reforms as implemented in local settings (see Marsh & Huberman, 1984). More research is

needed about the content of the local reform (especially comprehensive reform), the types of students targeted, and the relationship of the new innovations to the previous curriculum and instructional program in the schools. Moreover, little research is available about local implementation factors which enhance the recent state-initiated improvement efforts or about the way in which these implementation processes are related to the types of innovations undertaken. Finally, limited research is available about the relative impact of state-initiated top-down or bottom-up comprehensive approaches to reform on student learning, staff morale, or on the ongoing capacity of the school to continue to improve.

California has been one of the most active states in providing state leadership in the reform effort. Prior to 1983, the State Department of Education initiated a bottom-up process-oriented reform effort known as the California School Improvement Program. However, since 1983, the state has been a national leader in reform that is more top-down and content-oriented. A comparison of top-down content-oriented reform and bottom-up process-oriented reform in California provides an important opportunity for examining the relative success of the two strategies. In both approaches, reform was comprehensive and was intensely supported by the state. Consequently, it is possible to see "robust" versions of both reform strategies at work. Second, it is easier to control for state leadership factors; California has a tradition of active State Department of

Education leadership and a common political framework at the state level. Third, sites can be studied in greater depth, especially because several studies of the separate reform efforts have already been carried out in the state and are available for re-analysis. Finally, this "within state" comparison can examine schools with similar demographic and district characteristics so that the interaction of context and program factors can be studied more carefully.

## Purpose of the Study

The purpose of the study was to compare two broad strategies for instituting reform in secondary schools: the bottom-up, process-oriented approach typified by the California SIP program, and the top-down content-oriented approach typified by the more recent school reform effort in California. The comparison was made in terms of the types of innovation undertaken, the local implementation process used, and the impact of the reform on school climate, teachers, students, and ongoing capacity for change at the local level.

Specifically, the comparison of top-down and bottom-up strategies focused on:

1. What types of innovations were undertaken to improve academic achievement? That is, what content areas were addressed, what type of students were targeted, what methods of instruction were pursued?

2. In what ways did people at the school conceive of, and implement, the process of change? To what extent, for example, were innovations pursued through schoolwide efforts, through individual departments, through ad-hoc groups of staff members? What groups or key participants tended to have most and least input?

3. In what ways did the innovations affect student outcomes, staff morale, or the capacity of the organization to make on-going change?

Description of the Reform Approaches

The SIP approach. The bottom-up process-oriented reform approach is typified by the California School Improvement Program (SIP). SIP was implemented as a comprehensive on-going secondary school reform effort in 1977, replacing an earlier elementary school reform effort. By 1982, SIP operated in 3,500 schools including 63% of elementary schools and 18% of secondary schools in the state. State leaders envisioned SIP as a catalyst for strengthening local capacity for on-going school reform as well as a vehicle for implementing a broad array of locally-defined improvements in schools.

The SIP program provided state funding for a systematically designed local process of school improvement that included: a) a planning year leading to a school-wide multi-year plan for local reform, b) a School Site Council consisting of parents, teachers and administrators which governed the school reform effort, c) staff development and other implementation support strategies conducted at the local site, d) continual monitoring of the program by the local School Site Council and on-going revision of the goals and strategies of the local change effort, and e) program reviews of the local effort by trained review teams consisting of state monitors and/or peers from nearby districts, and a yearly review of revised plans by the State Department of Education.

In general, SIP schools focused on a broad array of improvements of school quality rather than on test score improvement alone. The state mandated certain broad content goals which the local plan had to address. However, the local site was free to determine both their specific focus within the broad goals and the order in which the broad goals should be addressed.

The School Reform approach. The top-down content-oriented reform approach is typified by the second major school reform effort (SR) which was based on state legislation (California Senate Bill 813) passed in 1983. This legislation contained over 80 educational policies and programs ranging from curriculum and instruction reform to revised financial structures, including incentives for longer school days and years. The SR legislation increased high school graduation requirements to 3 years of English, 2 years of mathematics, 2 years of science, 3 years of social studies, 2 years of physical education and 1 year of either foreign language or fine arts. The legislation required the State Department of Education to develop model curriculum standards for these subject areas and mandated local districts to compare their curriculum to the model standards. The Department also developed new criteria for textbook selection that included more substantive in-depth content, increased emphasis on thinking and problem-solving and more attention to controversial and ethical issues. The legislation also created a tenth grade counseling program designed to insure that sophomores were

counseled to enroll in an academic program that would lead to graduation. Stronger district and school homework policies were also mandated.

The SR reform specifically strengthened the alignment between local curriculum and the state testing program known as the California Assessment Program (CAP). At the state level, CAP was linked more directly to state-developed model curriculum standards. The test was also revised by expanding subjects assessed to include reading, mathematics, social studies and science, and emphasizing problem-solving and applications rather than only basic skills and knowledge.

Unlike SIP, the SR mandate did little to prescribe the local implementation process for the reform. The legislation did not delineate specific district or school implementation structures or plans like were prescribed by the SIP legislation. The SR legislation, however, did establish mentor teachers (about 5 percent of all teachers) who were to provide staff development especially for new teachers, and to undertake curriculum development, while earning an extra $4,000 per year. The SR legislation also required site administrators to demonstrate new knowledge and expertise in order to be certified as teacher evaluators. Finally, the SIP legislation itself was modified to focus more directly on the curriculum and instruction reforms required in the S.B. 813 legislation. The impact of this redirection was minimal, however, because only a small percentage of secondary schools had SIP programs.

## Methodology

The comparison of SIP and SR secondary schools was based on a re-analysis of case studies which had been developed as part of two major studies of school improvement/reform in California. In both studies, researchers were on-site at the school and district for approximately 10 days spread over most of an academic year. The case studies themselves averaged 50 single-spaced typewritten pages of text which described the context of the local site, the content of the reform as implemented, the local implementation process and the results of the reform process for school climate, administrators, teachers, students, and the ongoing capacity of the organization to change. Both sets of case studies were structured so that common variables and analytic categories were used across sites.

The SIP Study. Berman, Gjelten, Czezak, Izu and Marsh (1984) conducted a study of the SIP program including examination of differences between elementary and secondary schools in carrying out the SIP program (Berman & Marsh, 1984; Marsh, 1987). Data collection for the study extended over two years in a way that integrated survey research with field study. Case studies used in the re-analysis were drawn from the second year fieldwork which included 23 secondary schools randomly selected as a stratified sub-sample of the year one survey sample. However, Berman, et al. (1984, p. 37) report that, "a major criterion for awarding a grant to high schools was their ability to implement an effective program." Consequently, the population of SIP

secondary schools was "atypical" in similar ways to the SR sample. SIP secondary schools represented the geographic and ethnic diversity of the state and did not over-represent perennially high preforming schools.

Data collectors rated outcomes such as student achievement, school climate, administrative leadership and teacher skills for each site. The ratings entailed a comparison of the school against itself over a four year period. Two ratings were made per site for each outcome: the current situation and the situation 4 years ago using a 100 point scale that represented the range of schools known to the data collector. A difference score was then calculated for each outcome at each school. Consequently, the ratings did not constitute a longitudinal comparison of any one cohort of students nor were comparison schools used.

Meetings of the data collectors both during and after the data collection served to increase the comparability and quality of the case surveys. At one of the meetings, effort was made to standardize outcome ratings across data collectors by discussing anchors for the scale and the adjusting the ratings across sites. Details of the SIP methodology are described in the final report.

The School Reform Study. Odden and Marsh (1987) conducted a study of the SB 813 reforms in secondary schools using a similar case survey approach. The purposive sample was designed to include a small number of schools which had made considerable progress in implementing the Senate Bill 813 reform especially in

terms of an increase in academic focus for the school. Perennially high performing schools were excluded from consideration.

The sample was identified in three stages: a) nomination by regional education leaders who identified the schools as having made considerable improvement since 1983, b) confirmation that student enrollment in academically challenging courses had increased in the last four years, and c) selection of schools that represented the geographic and ethnic distribution of the state. Seventeen secondary schools were selected-- 12 high schools, and 5 junior/middle schools that were in the same districts as the high schools.

Data collection took place over one academic year and focused on: 1) the content of the local reform effort, 2) the local implementation process, and 3) the impact of the reform. Data collectors received four days of training, and were on-site approximately 11 days to observe, interview, and examine documents using structured data collection guides similar to the one used in the SIP study. Data were collected from teachers, department chairs and other lead teachers, site and district administrators. Outcomes were rated by the data collector using the same techniques used in the SIP study. These techniques included adjustment of the ratings across sites following discussion among the data collectors.

Following each of the three rounds of data collection, case reports were prepared around specific factors and the relationship of factors within the site. In addition, meetings

with data collectors were held to increase the comparability and quality of the case studies, and to develop tentative findings.

The Re-Analysis For This Study. For the re-analysis, 10 high school and 11 junior high/middle school cases were used from the 23 SIP case surveys. The remaining 2 cases were dropped because they lacked sufficient information about the content of the innovations and the local implementation process in the open-ended portions of the case survey. All 12 of the SR high schools and all 5 of the SR junior high/middle schools were included in the re-analysis. Table 1 presents the school location and student ethnicity characteristics of the SIP and SR sites.

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Table 1 about here

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The samples are quite similar in terms of the urban/rural location of the school except for the undersampling of big city SIP schools and the absence of rural SR junior high/middle schools. The ethnic composition of the SR high schools were more likely to be predominantly hispanic or black. The ethnic composition of big city or large suburban junior high/middle schools were quite similar in the two samples but the SIP sample also included mostly anglo and rural junior high/middle schools as well.

In conducting the re-analysis, an adaptation of the Miles and Huberman (1984) qualitative analysis techniques was used. In the first phase of the re-analysis, descriptor categories and

sub-categories were created and refined for each of the research questions. A descriptive profile of each SIP and SR site was then developed using the common descriptors. This task was made easier because the SR study had explicitly used the Miles and Huberman (1984) analytic techniques and the focus of the case write-ups in the two studies were quite similar.

In the second phase, higher-level inferences and summaries of findings were drawn separately for the SIP and SR sites, often using the display techniques developed by Miles and Huberman. Finally, cross-study comparisons were made in terms of: a) low-inference descriptions by site for each of the research questions posed in this paper, and b) high-inference ratings (such as high/moderate/low) by site for categories related to the research questions.

## Results

### The content of the reform efforts.

The content of the two reforms was compared in terms of: a) the types of students targeted in the reform, b) the types of innovations undertaken, c) the curriculum areas addressed, d) the nature of alignment between curriculum and testing, and e) the attention given to improved school climate in the two reform strategies. Table 2 presents high-inference summaries of comparisons of SIP and SR schools in terms of students, innovations and curriculum areas addressed.

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Table 2 about here

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Types of students targeted by the reform. SIP and SR schools differed dramatically in the type of students targeted by the two improvement efforts. In all but six SIP schools, students who would have difficulty in passing the local proficiency test covering basic skills in reading, writing, and math were the focus of the reform effort (see Table 2). These students were seen as needing remedial instruction and counseling. Conversely, all 17 SR schools targeted the "average student" who would best be served if the entire curriculum were more academically oriented. Students with special needs defined as "at risk", Chapter I, bilingual or mainstreamed special education students were also targeted for intensified support services so they could benefit from comprehensive academic reform. In short, SIP schools targeted a small group of students while SR students in SR schools were seen as best served when all students were targeted.

However, despite differences in the targeted group of students there was a common source of pressure for the students selected. Both SIP and SR schools selected their target students based on external pressure generated by the State Department of Education. The State Department of Education itself highlighted and responded to societal concerns about test scores-- basic skills for the SIP reform in the early 1980's and achievement scores for SR around 1983-- which became focused in the form of new local proficiency tests (the SIP situation) or increased pressure to improve existing achievement test scores (the SR

situation). While the State Department provided other financial incentives and other regulatory pressures on the school, the selection by the school of student target groups was primarily a function of the external testing pressure applied.

Types of innovations undertaken. The type of innovations undertaken by leaders in SIP and SR schools were also quite different, partly in response to the differences in student target populations and testing pressures. For 14 SIP schools, the innovations were mostly new programs, remedial in nature, which were focused mostly on the specific target group (see Table 2). Moreover, for 17 of the SIP sites, these programs included moderate or extensive use of special centers (such as a reading lab) or classrooms (such as an individualized math program in a classroom) where unique instruction took place. Instruction, especially in junior high/middle schools, often reflected an "elementary school orientation" where sequenced, individualized instruction and "learning skills" were emphasized (see Table 2 and Berman et al, 1984, pp. 52-53). Staff for such special programs were recruited from elementary schools or other outside sources at 16 of the SIP sites (see Table 2). For many reasons, teachers in the SIP were often seen as being quite different from the regular staff who were often not extensively involved in the program.

Curriculum areas addressed. Within all 17 SR schools, the schoolwide reform was a combination of re-establishing a traditional academically oriented curriculum and modifying

existing curriculum or instruction. Over the first four years of the SR era, the focus was on strengthening the existing school program rather than on creating a new type of school (Odden & Marsh, 1987, pp. 30-32). Consequently, in the curriculum area, it is difficult to point to "new" programs. Instead, the emphasis in most schools was on re-establishing the "old" academic program which had "eroded" over the decade prior to 1983. For example, 11 of 13 SR schools had emphasized improving math and science within the regular curriculum and all 13 SR sites had emphasized improving English/writing within the regular curriculum (see Table 2). This emphasis did not lead to major changes in curriculum content at the classroom level, however. Traditional academic content was not a major <u>new</u> focus for the teacher.

In instruction, new use of direct instruction was seen in all of the SR schools, especially in the form of clinical teaching as developed by Madeline Hunter. In supervision, teacher evaluation and the support of new teachers, however, there were substantial changes in practice. All SR schools had certified their administrators as supervisors of teachers and had established a teacher evaluation system according to state mandate. Most schools had also instituted a mentor teacher program. Mentors were frequently helping to develop new curriculum and/or assist new teachers.

Perhaps the most significant change, however, was the integration of innovations into a systemic concern about

curriculum and instruction. Efforts to align curriculum and instructional strategies, or curriculum and testing were very typical "innovations" at SR schools (Odden & Marsh, 1987). Similarly, the coordination of staff development for teachers with new teacher evaluation procedure were typical "innovations". Unlike practice at the schools over the last decade, active efforts were made to design the integration and monitor the actual interaction of curriculum goals, texts, instruction, staff development, teacher evaluation and testing.

Some SR innovations were focused more specifically on helping students improve on test scores. Five SR high schools developed or adapted special programs to help all students achieve better CAP achievement scores (see Odden & Marsh, 1987). Early versions of these programs were held during homeroom period and focused on test-taking skills; later versions of the programs were increasingly integrated with the regular curriculum and included substantive skill development in reading, writing and math.

Many aspects of the curriculum were influenced by the reform process (see Odden & Marsh, 1988). The SR mandates included new high school graduation requirements and funding to support longer school days and years. For most districts, the new state graduation requirements resulted in increased student enrollments in science, math, English, foreign language and fine arts. Kirst (1987a) found that enrollments in these course areas did increase substantially to meet the state requirements and Odden and Marsh

(1987) found that the new courses represented new or strengthened academic content and not just the re-labelling of "weak" courses.

Moreover, with the shift in the 8th grade testing program to include more higher order thinking and problem-solving, SR schools were undertaking serious review and revision of science and social studies courses to include these cognitive approaches. School leaders were concerned that students do well on the new 8th grade CAP test and were proceeding to align curriculum goals with instructional strategies and tests (Odden & Marsh, 1987). Moreover, SR schools had identified that much more intense staff and curriculum development would be needed if the new curriculum directions were to be successful (Odden & Marsh, 1987).

SIP schools, on the other hand, had little external stimulation to revise the general social studies, science or "regular" math curricula (see Berman et al., 1984, p.53). These subjects received very little attention by local SIP decision-making groups. None of the 14 SIP schools addressed improving math and science within the regular curriculum as a major focus of their activity (see Table 2).

Curriculum alignment undertaken. Table 3 presents similarities and differences between SIP and SR schools in terms

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Table 3 about here

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of curriculum alignment and attention given to school climate. For both SIP and SR schools, extensive efforts were made to "align" testing with the instructional skills taught. Alignment

within the SIP program was handled by the few specialized instructors who bore the responsibility to help students pass the state-mandated but locally-developed proficiency exam. Alignment was a matter of linking the basic skills focus of the new innovations to the skills assessed by the local proficiency test. Seventeen of 21 SIP schools gave a high or moderate degree of emphasis to this form of alignment (see Table 2 and Berman, et al, 1984, p. 53).

Within the SR schools, alignment itself was a major reform and was managed jointly by the district and school leaders. Unlike SIP, alignment in the SR schools meant relating regular curriculum goals, texts and instructional strategies to state-developed achievement tests. Eleven SR sites gave this form of alignment a high degree of emphasis and 5 more sites gave it a moderate degree of emphasis (see Table 2). Conversely, only two of 17 SIP sites gave alignment within the regular curriculum at least a moderate degree of emphasis.

Attention given to school climate and attendance programs. Finally, both SIP and SR schools focused on attendance and "school climate" as part of the locally-defined reform content. For both SIP and SR schools, school climate refers to the locally defined attempts to create a more supportive environment for students. In SIP schools, programs to improve attendance operated as separate programs isolated from other academic programs (see Berman et al, 1984, p. 17). SIP schools included special counseling in most schools and a schoolwide, but

programmatically isolated, campaign to improve school "climate" in all but two schools. These programs were triggered by school concern that "at risk" students would drop out but also by concern that social spirit and cohesion were declining as the school acquired a more diverse student body.

In SR schools, concern about dropouts and attendance was both locally generated and stimulated by state monitoring procedures which required and publicized attendance and dropout data for each secondary school in the state. While school "climate" was not a specified part of the state mandated reform content, all SR schools created school climate programs (Odden & Marsh, 1987). In many cases, these locally initiated school climate efforts were explicitly designed to complement the more demanding academic program which was being implemented at the school. Consequently, school climate modification was conceptually and programmatically linked to the academic program. For example, a state-funded 10th grade counseling program (part of the state SR set of innovations) helped students select courses needed for graduation while also helping students cope with the new demands of the school. Moreover, at many SR schools, intensified programs to increase student attendance were coordinated with programs to monitor and support student progress in their academic coursework.

<u>The local implementation of change</u>.

We chose six main variables to describe the implementation processes found in the study. These are: a) the role envisioned

for the State Department of Education, the district and the local site, b) the degree of autonomy or locus of control given local districts and school sites, c) the nature of decision making structures established at the local level, d) the extent of emphasis on "process" (as opposed to "content") in the reform, e) the "fit" between the reform and the existing program at the site, and f) the role of key players in the implementation process.

The state's role. SIP and the SR reform strategies were considerably different in the role envisioned for the State Department of Education, the local district and the local site. In the SIP program, the locus of control was specifically the local site with the district having a general oversight responsibility. The State Department of Education sought to give the school power to pursue program improvement unburdened by district control or usurpation of financial resources. The Department facilitated the local improvement process by providing planning materials, reviewing plans, establishing a monitoring process to be used by regional monitoring teams, and by protecting the sites from district interference. While many SIP districts had a role in the SIP program, they were encouraged to provide a high degree of latitude to local schools. Assistance provided by the district was relatively modest and featured administrative assistance over curriculum/instruction and school management assistance (Berman, et al., 1984, pp. 129-130).

In the SR program, the State Department of Education was much more prescriptive about the substance of the reform (see Odden & Marsh, 1988). Department intent was communicated through mandates such as specific higher graduation standards; incentives such as for extending the school day and school year, and pressure such as publishing school-specific CAP score results (Odden & Marsh, 1987). In turn, the locus of control for implementing SR was more vague. Districts were accountable for responding to state mandates but were free to define the balance between district and site leadership in shaping and implementing the reform (Odden & Marsh, 1987, pp. 30-42). Compared to SIP, the SR reform strategy permitted a higher degree of autonomy for implementing the reform but less autonomy in defining the content focus of the reform.

Local decision-making, autonomy, and emphasis on process. In SIP schools, state regulation mandated that decision making authority be given to a new "independent" school site council (SSC). Equitable participation of parents, teachers, administrators and students was prescribed by state mandate. In practice, local decision-making followed several trend in SIP schools, as reflected in Table 4. First, the SSC constituted a new decision-making structure for planning and implementing reform in most SIP settings (see Table 4), and made little use of existing decision-making structures. In turn, the SSC became the umbrella decision-making structure under which ad hoc sub-committees planned and/or operated separate parts of the reform

effort. Second, the SSC typically provided little integration of reform with other decision-making structures in the school or district (see Table 4). A department chair might have served on the SSC but rarely provided a decision-making linkage with the department. Third, while there was extensive representation of the SSC from parents and students, the influence of these role groups on curriculum and programs was very limited (Berman, et al, 1984). Finally, the SIP decision-making structures had little representation from district staff (see Table 4).. District pressure to implement or assistance typically was expressed through the role of the principal rather through the SSC or other decision-making group.

In SR districts and schools, no state prescriptions were given about local decision making structures. In practice, Odden and Marsh (1987) identified several trends: a) districts took active leadership in shaping the general directions of the reform and communicating these directions "top-down" to sites (pp.30-32), b) numerous district-site implementation teams were used to refine the shape of the reform and guide its implementation (Table 4 and pp.35-41), and c) these implementation coordination efforts often amounted to new responsibilities for existing "regular" decision making structures rather than the creation of new decision making structures (Table 4 and p.35-36). The community was a remote source of pressure or support for the SR reform rather than a mandated or actual partner in the decision making process (see Table 4).

State regulation mandated highly specific processes for SIP schools. Once a local secondary school was selected, the process included a funded planning year during which a required process of needs assessment and plan development took place both within broad state "content-of-reform" guidelines and more specific state "process-of-reform" guidelines (Berman et al., 1984, pp. 147-162). Plans were reviewed by the Department of Education, primarily in terms of their adherence to state process regulations (Berman, et al, 1984, 193-209). Implementation was carried out in subsequent years in accordance with the plan which could be modified in terms of curriculum focus. Regional review teams then monitored the school's progress in implementation of the site plan.

In SR schools, the implementation process was much less formalized. The processes that evolved were the result of district/school initiative rather than state regulation. No SR school had a master plan containing needs assessment, goals, implementation activities and timelines that corresponded to the formal SIP plans. SR districts and schools favored implementation teams that emphasized interpersonal communication and informal memos over comprehensive written plans, and typically, they had much shorter planning phases than did SIP schools (Odden & Marsh, 1987, p.35-36).

<u>The organizational fit of the reform</u>. SIP and SR schools also had a different "fit" between the reform and the existing program at the site. In SIP secondary schools, the reform was

often seen as a categorical program because local SIP programs had a separate budget, a coordinator who was funded by SIP, an SIP-specific decision-making structure. Conversely, only 26% of SIP secondary schools saw SIP as primarily a process for curriculum change and even some of these sites saw SIP as primarily a mechanism for coordinating categorical programs (Berman et al., 1984, p. 49). Table 2 showed that SIP innovation frequently took place in special labs and centers outside the regular classroom and frequently involved the use of special staff.

SIP was also seen as a <u>complementary</u> program that covered program deficits not adequately dealt with by the regular program (Table 4 and Berman, et al, 1984, p. 53). Consequently, innovations were frequently viewed as separate and independent programs which needed to be developed and then maintained while SIP funding and attention of the SSC shifted to other aspects of the school. In turn, there was little sense that the separate innovations should or could be increasingly integrated over time. Different "camps" in the school were seen as competing for SIP resources and the SSC frequently felt the need to spread the resources between competing groups.

In most SIP schools, SIP was also seen to be <u>remedial</u> in orientation-- it fixed problems for "at risk" students that the regular program either was perceived to have created or was not effective in addressing. Table 2 presented data about the

remedial program focus of SIP as well as the extent that special labs/centers and new staff were used.

Finally, in 15 of 21 SIP schools, SIP was used as an innovative cocoon-- it empowered lead teachers or administrators to carry out innovations by providing permission, funding, implementation assistance and political support to carry out the change. In some cases, for example, SIP reform allowed junior high/middle school principals to implement an "elementary school orientation" within an SIP program in a junior high or middle school where the regular program had a "high school, subject matter orientation." While most school climate changes were schoolwide campaigns, most of the other SIP innovations were carried out by lead teachers who worked in isolation with small groups of committed colleagues. Only rarely were SIP innovations sponsored by an entire department or school (see Berman et al, 1984, p. 53).

In strong contrast, SR districts and schools handled the process of reform through less formal but "regular" decision-making and implementation structures which reinforced a dominant "pattern of fit" found in many SR schools (Table 4 and Odden & Marsh, 1987, pp. 30-42). This "pattern of fit" was based on the view that SR was a qualitative extension and expansion of the regular program rather than a distinct program functioning as isolated complement and catalyst to the regular program. Most SR innovations were based in academic departments of the school and almost all had the sponsorship of the department head, the school

principal and the district leadership. These groups were often also the originators of the innovation (Odden & Marsh, 1987, pp. 30-38).

In several ways, the fit of the SR reforms became tighter over time. The SR reforms: a) built on previous district and school efforts and directions, b) become increasingly integrated as a comprehensive reform instead of a set of separate reform components, c) were increasingly viewed as the regular way the school operates, and d) evolved in phases from reestablishing a traditional academic orientation to establishing a new curriculum emphasis on higher order thinking, problem-solving and communication skills (Odden & Marsh, 1987, pp. 30-33).

Two examples serve to illustrate the evolutionary "fit" found in SR schools but not in SIP schools. The first concerns innovations related to the improvement of writing skills for students. Both SIP and SR schools drew heavily on the California Writing Project which is based at the University of California-Berkeley. The Cal Writing Project has emphasized the need for teachers to become grounded in the craft of writing and drawing on the best of practical experience around topics such as the teacher as writer with students, the use of a pre-writing, writing, post-writing sequence, and the sharing of writing among peers. Many teachers in the state have attended intensive summer writing institutes in regional settings.

Early introduction of the Cal Writing Project within the two sets of schools was similar: one or several unsponsored teachers

attended summer institutes and brought the ideas back to the school. In subsequent months, both SIP and SR lead teachers were able to implement the Cal Writing ideas within their own classrooms. However, SIP leaders had more difficulty getting more than a few other teachers to join in the implementation process: the problem of institutional fit was substantial. In contrast, in SR schools the innovation was more easily institutionalized into district curriculum guides, department plans and operations.

The second example concerns special efforts to help students improve on tests. In 9 of 12 SR high schools, remedial programs were developed to help students perform better on the CAP test. At "Los Angeles High", for example, this program was a homeroom-based program operated for 10 minutes each day. This special program, however, was being integrated with the regular academic curriculum. In most SR districts, district and site leaders promoted the view that all students could learn and that the best "remediation" was a strong regular program required equally of all. District leaders were very active in trying to convince teachers to adopt this view, and were having increasing success in this endeavor. In contrast, SIP innovations often did not "fit" and remained isolated from the regular curriculum.

The SR reform was evolutionary in another sense as well. Both at the state and district level, the view of leaders was that the traditional academic curriculum could "evolve" (through active leadership) into a curriculum featuring higher order

thinking, problem-solving, and communication skills while maintaining the content curriculum gains as well. At the state level, this evolution was fostered by: a) revision of the CAP test to include this new curriculum focus, b) revision of the state model curriculum standards and curriculum guides, and c) several forms of technical assistance for implementing the new curriculum focus. In some SR districts, district leaders had established plans for implementing this new focus and had structured district/school teams to design the program and its implementation. These leaders realized that the new curriculum focus would entail considerable staff development and curriculum development and would represent a major change in the district. In several cases, mentor teachers were being re-deployed to play a more strategic role in implementing these new programs in schools.

While these top-down activities were happening, parallel bottom-up implementation of innovations, reflecting this new focus, had begun in some schools. The bottom-up activities were of two kinds. First, there was activity stimulated by the new state focus in the CAP test and the model curriculum standards. School leaders were not necessarily directed by the district to undertake this review; instead, the impetus came from site leaders who knew of the state directions through their professional associations and similar networks. Second, there was activity like the Cal Writing Project where creative site leaders became involved, as described above. Initially, these

leaders developed an innovative cocoon similar to the SIP situation. In the early stage of local implementation, the SR cocoon was less supportive of the innovation in that fewer resources were available as was the case in the SIP program. Conversely, programs developed in the SR cocoon appear to have an easier time being adopted by the leaders of the top-down strategy.

Key players. Both SIP and SR schools had key players who were leaders in planning and implementing the reform. In SIP schools the key players during the planning phase were members of the SSC who developed the SIP plan and managed the planning process to achieve this end. During the implementation phase, the SSC was much less influential than were the initiatives of the innovation-specific lead teachers. These teachers carried out the implementation themselves and often assisted colleagues to implement the change. They often saw themselves as innovators in an environment that frequently was negative or, at best, neutral to the proposed change. However, almost every school had at least one positive example of support from the principal and/or the district office. In any given SIP school, the number of such lead teachers often was less than 5 and never exceeded 10.

By comparison, SR sites had district-appointed leaders as key players in both the planning and implementation phases in all but three (mostly rural) cases (see Table 4). Initiators of the reform tended to have formal authority for leadership (both at

the district and the site), and they worked in teams sanctioned or organized by the district. Moreover, the number of leaders at the school tended to be twice the number in SIP schools and frequently included department chairs or mentor teachers who had formal roles within the school organization itself in addition to their responsibilities for implementing the SR reform.

However, for the new curriculum focus characterized by higher order thinking, problem-solving and communication skills, SR site leaders acted more like the SIP site leaders during the implementation process. SR leaders obtained ideas from outside sources rather than through the district, and proceeded without district sanction or formal support in the early stages of implementation (see Odden & Marsh, 1987, pp. 54-55).

Summary. In short, SIP leaders had little formal authority within the school or district and worked through SIP sponsored or informal mechanisms to implement isolated portions of changes that complemented the regular curriculum. In contrast, SR leaders tended to be formal leaders of the organization who used district-sponsored mechanisms to carry out district initiated or sponsored innovations that were part of the "regular" curriculum. For the new curriculum focus in SR schools, parallel implementation strategies were being carried out: a top-down planning and design process, and a bottom-up, site-level implementation process.

Impact of the reforms.

Extensive information is available about the impact of SIP (Berman et al., 1984; Marsh, 1987; Berman & Marsh, 1984) and SR (Odden & Marsh, 1987; Odden & Marsh, 1988) on student outcomes, teacher practice, administrative practice and school climate. Moreover, in both studies, an index of the capacity of the organization to make on-going improvements was generated from school climate and administrative leadership items. The same reports provide information about the relationship between the content and/or process of local efforts and the outcomes of the separate reforms.

Table 5 presents a comparison of the impact of SIP and SR reform on student outcomes and the capacity of the school

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Table 5 about here

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to make on-going changes. The student outcome and organizational capacity indices are based on ratings made by the data collector concerning the extent of improvement for the school over a four year period.

Impact on student achievement. Both SIP and SR schools brought about a moderate amount of improvement in student outcomes (see Table 5). For SIP schools, this improvement was seen to be mostly in terms of: a) gains of "marginal students" on local proficiency tests, and b) gains for all students on writing skills. For SR schools, however, the focus was on: a)

improvement on CAP achievement scores, and b) better performance in "tougher" courses across the curriculum. Consequently, while the magnitude of the improvement for SIP and SR schools was similar, the substance of the student outcomes differed in the ways described above.

Impact on capacity for making on-going change. SR schools clearly made greater progress in terms of creating a capacity for making on-going changes in the school (see Table 5). This capacity was a combination of stronger teacher morale, supportive school climate, and administrative leadership in generating change. In SIP schools, the overall effect of the reform was minimal on organizational capacity for making on-going changes. Berman, et al. (1984) found that the impact of SIP on organizational capacity was highly influenced by the orientation of the school toward SIP. Schools that were oriented towards using SIP as a process of change making were almost as successful as were SR schools in creating a capacity for making on-going changes. Unfortunately, very few SIP secondary schools were able to adopt this orientation, or achieve this level of impact. In contrast, most SR schools were able to increase their organizational capacity by at least a moderate amount.

Impact on staff morale. The reform process also had an impact on staff morale. For both SIP and SR schools, the benefits were directly related to the extent that the teacher was involved in the planning and implementation process of the reform. In SIP schools, fewer teachers were involved in the

reform process so the gains were less widespread, but improvement in staff morale for teachers involved directly in SIP was substantial. For SIP schools, the benefits were also more apparent during the planning than the implementation phase because more teachers were involved in planning than in implementation.

For SIP and SR schools, staff morale was also linked to teacher efficacy and the sense that the school was getting "more under control." Teacher efficacy gains in SR schools were among the most dramatic impacts of the SR reform process. SR teachers had a gain score of approximately 24 points in terms of teacher efficacy over the SR implementation period. Teachers in SR schools also reported that the reform was giving them more leverage to push students to work harder, and this perception was positively related to staff morale.

In SIP schools, staff morale was linked to teacher efficacy but SIP was less able to provide a sense that the school was "getting more under control." In part, the teacher perception that the school was not under control was a contextual problem: Proposition 13 had limited the financial support for schools in the state. But within the school, SIP was more of a complementary program which was outside regular classrooms and decision-making structures. SIP didn't have the leverage to bring the school under control while SR did, at least to some extent.

## Discussion

The study provides 5 main lessons about the relative contributions of top-down, content-oriented and bottom-up, process-oriented reform strategies. First, top-down content-oriented strategies are effective for implementing comprehensive reforms. This strategy is known to be especially effective when: a) the content of the reform is targeted at all students and constitutes a toughening of existing academic programs, b) the local implementation process is stimulated by external pressure, especially in the form of testing, c) the content of the reform extends across the school and includes alignment of curriculum, textbooks, teaching strategies and testing, d) the roles of state, district and school are complementary, e) the local decision-making process complements rather than competes with the existing structures, f) the reform fits within the school and district, and g) key players are able to institutionalize their efforts within the regular program of the school. Such a top-down strategy has positive impact on both student outcomes and the capacity of the organization to make on-going changes.

The second lesson is that bottom-up process-oriented reform strategies can be effective for implementing unique programs targeted on specific student populations. The bottom-up strategy has real benefit for the specific student population but often can not generate both student benefits (especially for all students) and organizational capacity benefits.

The third lesson is that bottom-up changes can not easily be institutionalized within the regular program. While the innovative cocoon can nurture the initial development of creative reforms, several factors inhibit these reforms from being institutionalized, including: a) the isolation of the decision-making structures, b) the complementary nature of bottom-up programs, and c) the isolation and lack of formal authority of key players.

The fourth lesson is that the top-down content-oriented strategy must include bottom-up participation to be effective. While district leaders provided the initiation of the reform, teams of district and school leaders were needed to manage the implementation process. In this process, the issue is not so much the autonomy or lack of autonomy for the local site as it is the complementary roles which site, district and state can play to make the top-down strategy effective.

Finally, it is not clear that either the current version of top-down or bottom-up strategies can be effective for implementing the new curriculum focus which includes higher order thinking, problem-solving, and communication skills. The study shows how the top-down strategy can provide the top-down design for this new curriculum focus. In several districts, this design integrated many dimensions of curriculum, instruction and testing and provided a complex plan for implementing the new program. However, the top-down strategy will probably need to provide stronger processes for how site leaders can learn about and pilot

the new approaches. For this, the bottom-up strategy found in the SIP program provides useful insight about how to empower, fund, and protect creative key leaders within an innovative cocoon.

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TABLE 1

SCHOOL LOCATION AND STUDENT ETHNICITY CHARACTERISTICS OF SIP AND SR SAMPLE SCHOOLS.

| | SIP | | SR | |
|---|---|---|---|---|
| | No. of Schools | Student Ethnicity | No. of Schools | Student Ethnicity |
| HIGH SCHOOLS | | | | |
| Big City District | 1 | ● | 3 | ■ ⬢ ● |
| Large Districts | 3 | ⬢ ● ⬢ | 4 | ■ ⬢ ● ● |
| Medium Districts | 3 | ■ ⬢ ⬢ | 2 | ■ ● |
| Rural Districts | 3 | ■ ⬢ ■ | 3 | ■ ⬢ ● |
| JUNIOR HIGH/MIDDLE SCHOOLS | | | | |
| Big City Districts | 2 | ■ ● | 3 | ⬢ ⬢ ● |
| Large Districts | 4 | ■ ● ⬢ ● | 1 | ■ |
| Medium Districts | 2 | ⬢ ⬢ | 1 | ● |
| Rural Districts | 3 | ■ ■ ⬢ | | |
| Total No. of Schools | 21 | | 17 | |

KEY

A = Defined by district ADA. Big city range - 44,000 and up; Large District - 44,000 to 30,000; Medium 30,000 to 14,000 Rural (18,000 and very rural to 182).

B = ■ predominately anglo (over 60% of student body); ⬢ mixed (30 to 60% anglo); ● predominately minority (under 30% anglo).

TABLE 2

THE NUMBER OF SIP AND SR SCHOOLS THAT HAD HIGH, MEDIUM, OR LOW RATINGS CONCERNING STUDENTS, INNOVATIONS AND CURRICULAR FOCUS.

| FACTOR | SIP (N=21) | | | SR (N=17) | | |
|---|---|---|---|---|---|---|
| | High | Medium | Low | High | Medium | Low |
| Target Students | | | | | | |
| Degree of exclusive focus on remedial students | 8 | 6 (NA=1) | 6 | 0 | 0 | 17 |
| Types of Innovations Undertaken | | | | | | |
| Degree of remedial focus in program | 7 | 10 | 4 | 0 | 3 | 14 |
| Degree of emphasis on labs/centers to regular classrooms | 5 | 8 | 8 | 0 | 2 | 15 |
| Degree of use of special, external staff | 3 | 13 | 5 | 0 | 0 | 17 |
| Curriculum Areas Addressed | | | | | | |
| Degree of emphasis on improving math/science within regular curriculum. | 2 | 5 | 14 | District/School Level: Yes=11 No=2 NA=4<br>Major Classroom Content Change: 1 3 6 (NA=7) | | |
| Degree of emphasis on improving Eng/Writing within regular curriculum | 5 | 6 | 10 | District/School Level: Yes=13 No=0 NA=4<br>Major Classroom Impact: Yes=12 No=0 NA=5 | | |

TABLE 3

THE NUMBER OF SIP AND SR SCHOOLS THAT HAD HIGH, MEDIUM, OR LOW RATINGS CONCERNING CURRICULAR ALIGNMENT AND SCHOOL FOCUS.

| FACTOR | SIP (N=21) | | | SR (N=17) | | |
|---|---|---|---|---|---|---|
| | High | Medium | Low | High | Medium | Low |
| Curriculum Alignment Undertaken | | | | | | |
| Degree of effort to align regular curriculum with texts and state tests | 0 | 2 (NA=4) | 15 | 11 | 5 | 1 |
| Degree of curriculum/test alignment within remedial student-focused special centers/labs | 3 | 14 | 4 | | (DNA) | |
| Attention Given School Attendance\Climate | | | | | | |
| Degree of focus on discipline/attendance issues | 5 | 10 | 6 | 12 | 5 | 0 |
| Degree of isolation of discipline/attendance programs | 3 | 12 (NA=4) | 2 | 0 | 6 | 11 |

TABLE 4
THE NUMBER OF SIP AND SR SCHOOLS THAT HAD HIGH, MEDIUM, OR LOW RATINGS CONCERNING LOCAL DECISION-MAKING STRUCTURES, ORGANIZATION FIT, AND KEY PLAYERS.

| FACTOR | SIP (N=21) | | | SR (N=17) | | |
|---|---|---|---|---|---|---|
| | High | Medium | Low | High | Medium | Low |
| <u>Local Decision-making Structures</u> | | | | | | |
| Degree of use of existing structures to plan/implement the reform | 4 | 3 (NA=2) | 12 | 10 | 5 | 2 |
| Degree of integration of reform with other decision-making structures in school/ district | 3 | 5 (NA=2) | 11 | 9 | 6 | 2 |
| Degree of district staff membership on cross-role teams | 2 | 2 (NA=4) | 13 | 10 | 5 | 2 |
| Degree of parent/student membership on cross-role teams | 4 | 3 | 14 | 0 | 0 | 17 |
| <u>Organization Fit</u> | | | | | | |
| Degree that reform supplements rather than is integrated with regular school programs | 7 | 7 (NA=4) | 3 | 0 | 6 | 11 |
| <u>Key Players</u> | | | | | | |
| Extent of involvement of district staff as key players in planning/implementing the reform | 1 | 3 (NA=3) | 14 | 8 | 6 | 3 |

TABLE 5

EXTENT OF IMPROVEMENT IN STUDENT AND ORGANIZATION CAPACITY OUTCOMES OVER A FOUR YEAR PERIOD FOR SIP AND SR SCHOOLS

| | SIP | SR |
|---|---|---|
| Student Outcomes | 29.5 | 30.1 |
| Organizational Capacity Outcomes | 7.0 | 24.1 |

Scale: 50 = High level of improvement
25 = Moderate level of improvement
0 = Low level of improvement

Notes:

1. For SIP schools, student outcomes are a combination of "how well the schools is educating its students," "how well the school is treating its students: and the quality of curricular/instructional pedagogy (Gjelten, 1983). Ratings for a site were combined. (Berman, et al., 1984, pp.19, 56). For the SIP/SR comparison the scores were standardized across studies.

2. For SR schools, 5 student outcomes were rated. The wording of the items was high similar to the SIP items (See Odden & Marsh, 1987, Appendix C & E).

3. For SIP schools, organizational outcomes included school climate and administrative leadership items (See school as workplace, organizational health and physical/resources environment in Gjelten, 1983, and Berman, et al., 1984, p. 20).

4. For SR schools, organizational capacity was a combination of 5 school climate and 6 administrative leadership items (See Odden & Marsh, 1987, Appendix C & E).